

PLEASE AMEND THE CLAIMS AS FOLLOWS:

1. (PREVIOUSLY AMENDED) A purified and isolated polynucleotide selected from the group consisting of:

- (a) a polynucleotide encoding a polypeptide having the amino acid sequence of SEQ ID NO: 2, and
- (b) a polynucleotide which is complementary to the polynucleotide of (a).

2. (PRESENTLY CANCELED) The polynucleotide of claim 1 wherein the polynucleotide comprises nucleotides selected from the group consisting of natural, non-natural and modified nucleotides.

3. (PRESENTLY CANCELED) The polynucleotide of claim 1 wherein the internucleotide linkages are selected from the group consisting of natural and non-natural linkages.

4. (PREVIOUSLY PRESENTED) The polynucleotide of claim 1 comprising the nucleotide sequence of SEQ ID NO:1.

5. (PREVIOUSLY AMENDED) A purified and isolated polynucleotide that is an expression vector comprising a polynucleotide of claim 1.

6. (PRESENTLY AMENDED) A purified and isolated host cell comprising the expression vector of claim 5.

7. (PREVIOUSLY PRESENTED) A process for expressing a MurC protein of *Pseudomonas aeruginosa* in a recombinant host cell, comprising:

- (a) transforming a suitable host cell with an expression vector of claim 5; and,
- (b) culturing the host cell of step (a) in conditions under which allow expression of said the MurC protein from said expression vector.

8. (PREVIOUSLY AMENDED) A purified and isolated polypeptide having the amino acid of SEQ ID NO:2.

9. (PREVIOUSLY AMENDED) A method of determining whether a candidate compound is an inhibitor of a *Pseudomonas aeruginosa* MurC polypeptide comprising:

(a) providing at least one host cell harboring an expression vector that includes a polynucleotide encoding a polypeptide having the amino acid sequence of SEQ ID NO: 2 and

(b) contacting at least one of said cells with the candidate to permit the interaction of the candidate with the MurC polypeptide, and

(c) determining whether the candidate is an inhibitor of the MurC polypeptide by ascertaining the relative activity of the polypeptide in the presence of the candidate.

10. (PREVIOUSLY PRESENTED) The method of claim 9 wherein the polynucleotide has the nucleotide sequence of SEQ ID NO: 1.

11. (PREVIOUSLY PRESENTED) The method of claim 9 wherein in step (c) the relative activity is determined by comparing a measurement of MurC polypeptide activity of at least one cell before step (b) to a measurement of MurC polypeptide activity of at least one cell after step (b).

12. (PREVIOUSLY CANCELLED)

13. (PREVIOUSLY CANCELLED)

14. (PREVIOUSLY CANCELLED)

15. (PREVIOUSLY AMENDED) A method of determining whether a candidate compound is an inhibitor of a *Pseudomonas aeruginosa* MurC polypeptide comprising:

(a) providing a sample that includes a MurC polypeptide having the amino acid sequence of SEQ ID NO: 2, and

(b) contacting said sample with the candidate to permit the interaction of the candidate with the MurC polypeptide, and

(c) determining whether the candidate is an inhibitor of the MurC polypeptide by ascertaining the relative activity of the MurC polypeptide in the presence of the candidate.

16. (PREVIOUSLY CANCELED)

17. (PREVIOUSLY PRESENTED) The method of claim 15 wherein in step (c) the relative activity is determined by comparing a measurement of MurC polypeptide activity of the sample before step (b) to a measurement of MurC polypeptide activity of the sample after step (b).